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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,376	07/24/2003	Franck R. Diard	019680-005600US	2450
20350	7590	12/27/2004	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			TUNG, KEE M	
			ART UNIT	PAPER NUMBER
			2676	

DATE MAILED: 12/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/627,376

Applicant(s)

DIARD ET AL.

Examiner

Kee M Tung

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25,33 and 34 is/are rejected.
- 7) ☒ Claim(s) 26-32 and 35-41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9, 11-21, 23-25, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greene (5,929,872) in view of Sturgess (5,861,893).

Greene teaches a bit block transfer accelerator apparatus (Fig. 1, 10) which is one portion of a graphics processing integrated circuit (col. 2, lines 62-63) with a display memory (14) being directly accessible by the BLIT accelerator (10). The BLIT accelerator (10) includes a number of control registers (16) for receiving BLIT operation control values from host bus (12), a sequencing engine (18), an ALU (20) and a data storage unit (22). It is noted that Greene fails to show a completed graphics processing integrated circuit. Sturgess teaches a graphics system (Fig. 1) comprising a host processor (110), bridge logic (120), a main memory (130), I/O device (170) and a graphics subsystem (140) includes a graphics accelerator (150) and a graphics memory (160). The graphics subsystem (Figs. 3A and 3B) further includes a command buffer, 2D pipelines (301 and 303), 3D pipeline (305), and graphics controller (150). The graphics controller (150) coordinates the access of 2D pipelines and 3D pipeline 305 to resources (340), includes a BLTBIT engine (370) through a combination of arbitration logic (360), command parse logic (330), and first and second operating registers (308

Art Unit: 2676

and 348) accessed through memory mapped buffers (see Fig. 3B and col. 6, line 1 through col. 7, line 52). It would have been obvious to one of ordinary skill in the art at the time the present invention was made to combine the teachings of the graphics subsystem of Sturgess into the system of Greene in order to provide a completed system as required by the claimed because Greene suggests the BLIT accelerator (10) just one portion of a graphics processing integrated circuit and can be combined into any graphics system. Therefore, at least claims 1-9, 11-21, 23-25, 33 and 34 would have been obvious.

3. Claims 10-14 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greene (5,929,872) and Sturgess (5,861,893) as applied to claims 1 and 15 above, and further in view of Marino (6,784,893).

The teachings of Greene and Sturgess are given in previous paragraph of this Office action. However, the combined system fails to explicitly teach or suggest the BLIT operation includes a color key operation. This is what Marino teaches. Marino teaches digital video system (Fig. 1, 10) comprising a host processor (14), main memory (12), API (40), I/O device (16), and a graphics system (30) includes a graphics engine (32), scalar (34) and other components (36). The graphics engine (32) includes a Boolean logic unit (BLU 44 in Fig. 2) can provide a number of functions, such as, a raster operation which is provided by a raster operation unit (46) and non-raster operation functions conducted by operation units (48-54), such as, color-key operation (48), a pixel bit mask operation unit (50), a pattern write mask operation unit (52) and a pixel boundary modify write operation unit (54). It would have been obvious to one of

Art Unit: 2676

ordinary skill in the art at the time the present invention was made to combine the teachings of color key operation of Marino into the combined system of Greene and Sturgess in order to provide a raster operation unit capable of providing a raster and non-raster operation functions simultaneously as taught by Marino (abstract). Therefore, at least claims 10-14 and 22-23 would have been obvious.

### ***Allowable Subject Matter***

4. Claims 26-32 and 35-41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

The prior art made of record fails to anticipate or make obvious the claimed invention. Specifically, the prior art fails to suggest or teach, in combination with the remaining steps, the first set of rendering commands is associated with a first image to be rendered to a first display buffer, ...., as recited in claims 26 and 35 and the first set of rendering commands is associated with a bounding box associated with an object ... as recited in claims 28 and 37.

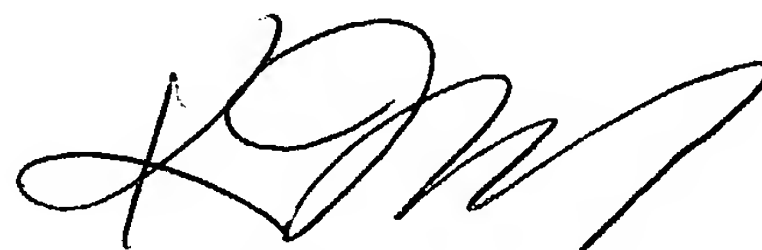
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kee M Tung whose telephone number is 703-305-9660. The examiner can normally be reached on Tuesday - Friday from 5:30 am - 4:00 pm.

Art Unit: 2676

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 703-308-6829. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kee M Tung  
Primary Examiner  
Art Unit 2676